CLAIMS

What is claimed is:

1   1.   A method comprising:

2   receiving a number of classes, each class having a number of classification

3   rules; and

4   outputting a result indicating a first class of the number of classes conflicts with

5   a second class of the number of classes upon determining that at least one of

6   classification rules of the first class overlaps with one of the classification rules of the

7   second class.

1   2.   The method of claim 1, wherein the outputting of the result indicating the first

2   class conflicts with the second class upon determining that the at least one of the

3   classification rules of the first class duplicates one of the classification rules of the

4   second class.

1   3.   The method of claim 1, wherein the outputting of the result indicating the first

2   class conflicts with the second class upon determining that the at least one of the

3   classification rules of the first class partially overlaps with one of the classification

4   rules of the second class.

1   4.   The method of claim 1, wherein the outputting of the result indicating the first

2   class conflicts with the second class upon determining that the at least one of the

3   classification rules of the first class is nested overlapped with one of the classification

4   rules of the second class.

1   5.   The method of claim 1, wherein the outputting of the result indicating the first

2   class conflicts with the second class upon determining that the at least one of the

3   classification rules of the first class is cyclic nested overlapped with one of the

4   classification rules of the second class.

1   6.   The method of claim 1, wherein the number of classification rules of each class

2   include a number of dimensions, each dimension including a number of rule terms,

3   wherein the method comprises merging the number of rule terms for each dimension.

1   7.   The method of claim 6, wherein the merging of the number of rule terms for

2   each dimension comprises merging adjacent, overlapping and duplicate ranges of the

3   number of rule terms for each dimension.

1   8.   A method comprising:

2   receiving a number of classes, each class having a number of classification

3   rules; and

4   outputting a result indicating whether a first class of the number of classes

5   conflicts with a second class of the number of classes based on whether the

6   classification rules of the first class overlap with the classification rules of the second

7   class.

1   9.   The method of claim 8, wherein the number of classification rules of each class

2   include a number of dimensions, each dimension including a number of rule terms,

3   wherein the method comprises merging the number of rule terms for each dimension.

1   10.   The method of claim 9, wherein the merging of the number of rule terms for

2   each dimension comprises merging adjacent, overlapping and duplicate ranges of the

3   number of rule terms for each dimension and wherein outputting the result indicating

4   whether the first class conflicts with the second class is based on whether the number of

5   rule terms for each dimension of the classification rules of the first class overlap with

6   the number of rule terms for each dimension of the classification rules of the second

7   class.

1   11.   The method of claim 8, wherein the outputting of the result indicating whether

2   the first class conflicts with the second class is based on whether the classification rules

3   of the first class are duplicates of the classification rules of the second class.

1   12.   The method of claim 8, wherein the outputting the result indicating whether the

2   first class conflicts with the second class is based on whether the classification rules of

3   the first class partially overlap with the classification rules of the second class.

1   13.   The method of claim 8, wherein the outputting the result indicating whether the

2   first class conflicts with the second class is based on whether the classification rules of

3   the first class nested overlap with the classification rules of the second class.

1   14.   The method of claim 8, wherein the outputting the result indicating whether the

2   first class conflicts with the second class is based on whether the classification rules of

3   the first class cyclic nested overlap with the classification rules of the second class.

1   15.   A method comprising:

2   receiving a number of classes, each class having a number of classification

3   rules;

4   for each classification rule of a first class of the number of classes, performing

5   the following:

6   determining whether a classification rule of the first class partially

7   overlaps a classification rule of a second class of the number of classes;

8   determining whether a classification rule of the first class nested

9   overlaps a classification rule of the second class; and

10   determining whether a classification rule of the first class is a duplicate

11 of a classification rule of the second class; and

12   outputting a result indicating the first class conflicts with the second

13 class upon determining that a classification rule of the first class partially

14 overlaps, nested overlaps, or is a duplicate of a classification rule of the second

15   class.

1   16.   The method of claim 15, wherein the number of classification rules of each

2   class include a number of dimensions, each dimension including a number of rule

3   terms, wherein the method comprises merging the number of rule terms for each

4   dimension.

1   17.   The method of claim 16, wherein the merging of the number of rule terms for

2   each dimension comprises merging adjacent, overlapping and duplicate ranges of the

3   number of rule terms for each dimension.

1   18.   The method of claim 17, wherein outputting the result indicating the first class

2   conflicts with the second class comprises outputting the result indicating the first class

3   conflicts with the second class upon determining that the number of rule terms for each

4   dimension of the number of classification rules of the first class partially overlaps,

5   nested overlaps, or is a duplicate of the number of rule terms for each dimension of the

6   number of classification rules of the second class.

1   19.   A machine-readable medium that provides instructions, which when executed

2   by a machine, causes the machine to perform operations comprising:

3   receiving a number of classes, each class having a number of classification

4   rules; and

5   outputting a result indicating a first class of the number of classes conflicts with

6   a second class of the number of classes upon determining that at least one of

7   classification rules of the first class overlaps with one of the classification rules of the

8   second class.

1   20.   The machine-readable medium of claim 19, wherein the outputting of the result

2   indicating the first class conflicts with the second class upon determining that the at

3   least one of the classification rules of the first class duplicates one of the classification

4   rules of the second class.

1   21.   The machine-readable medium of claim 19, wherein the outputting of the result

2   indicating the first class conflicts with the second class upon determining that the at

3   least one of the classification rules of the first class partially overlaps with one of the

4   classification rules of the second class.

1   22.   The machine-readable medium of claim 19, wherein the outputting of the result

2   indicating the first class conflicts with the second class upon determining that the at

3   least one of the classification rules of the first class is nested overlapped with one of the

4   classification rules of the second class.

1   23.   The machine-readable medium of claim 19, wherein the outputting of the result

2   indicating the first class conflicts with the second class upon determining that the at

3   least one of the classification rules of the first class is cyclic nested overlapped with one

4   of the classification rules of the second class.

1   24.   The machine-readable medium of claim 19, wherein the number of

2   classification rules of each class include a number of dimensions, each dimension

3   including a number of rule terms, wherein the method comprises merging the number

4   of rule terms for each dimension.

1   25.   The machine-readable medium of claim 24, wherein the merging of the number

2   of rule terms for each dimension comprises merging adjacent, overlapping and

3   duplicate ranges of the number of rule terms for each dimension.

1   26.   A machine-readable medium that provides instructions, which when executed

2   by a machine, causes the machine to perform operations comprising:

3   receiving a number of classes, each class having a number of classification

4   rules; and

5   outputting a result indicating whether a first class of the number of classes

6   conflicts with a second class of the number of classes based on whether the

7   classification rules of the first class overlap with the classification rules of the second

8   class.

1   27.   The machine-readable medium of claim 26, wherein the number of

2   classification rules of each class include a number of dimensions, each dimension

3   including a number of rule terms, wherein the method comprises merging the number

4   of rule terms for each dimension.

1   28.   The machine-readable medium of claim 26, wherein the merging of the number

2   of rule terms for each dimension comprises merging adjacent, overlapping and

3   duplicate ranges of the number of rule terms for each dimension and wherein outputting

4   the result indicating whether the first class conflicts with the second class is based on

5   whether the number of rule terms for each dimension of the classification rules of the

6   first class overlap with the number of rule terms for each dimension of the classification

7   rules of the second class.

1   29.   The machine-readable medium of claim 26, wherein the outputting of the result

2   indicating whether the first class conflicts with the second class is based on whether the

3   classification rules of the first class are duplicates of the classification rules of the

4   second class.

1   30.   The machine-readable medium of claim 26, wherein the outputting the result

2   indicating whether the first class conflicts with the second class is based on whether the

3   classification rules of the first class partially overlap with the classification rules of the

4   second class.

1 31.   The machine-readable medium of claim 26, wherein the outputting the result

2 indicating whether the first class conflicts with the second class is based on whether the

3 classification rules of the first class nested overlap with the classification rules of the

4 second class.

1 32.   The machine-readable medium of claim 26, wherein the outputting the result

2 indicating whether the first class conflicts with the second class is based on whether the

3 classification rules of the first class cyclic nested overlap with the classification rules of

4 the second class.

1 33.   A machine-readable medium that provides instructions, which when executed

2 by a machine, causes the machine to perform operations comprising:

3   receiving a number of classes, each class having a number of classification

4 rules;

5   for each classification rule of a first class of the number of classes, performing

6 the following:

7   determining whether a classification rule of the first class partially

8   overlaps a classification rule of a second class of the number of classes;

9   determining whether a classification rule of the first class nested

10   overlaps a classification rule of the second class; and

11   determining whether a classification rule of the first class is a duplicate

12   of a classification rule of the second class; and

13   outputting a result indicating the first class conflicts with the second

14   class upon determining that a classification rule of the first class partially

15   overlaps, nested overlaps, or is a duplicate of a classification rule of the second

16   class.

1 34. The machine-readable medium of claim 33, wherein the number of

2 classification rules of each class include a number of dimensions, each dimension

3 including a number of rule terms, wherein the method comprises merging the number

4 of rule terms for each dimension.

1 35. The machine-readable medium of claim 34, wherein the merging of the number

2 of rule terms for each dimension comprises merging adjacent, overlapping and

3 duplicate ranges of the number of rule terms for each dimension.

1

1 36. The machine-readable medium of claim 35, wherein outputting the result

2 indicating the first class conflicts with the second class comprises outputting the result

3 indicating the first class conflicts with the second class upon determining that the

4 number of rule terms for each dimension of the number of classification rules of the

5 first class partially overlaps, nested overlaps, or is a duplicate of the number of rule

6 terms for each dimension of the number of classification rules of the second class.